

Please provide the following information, and submit to the NOAA DM Plan Repository.

Reference to Master DM Plan (if applicable)

As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

1. General Description of Data to be Managed**1.1. Name of the Data, data collection Project, or data-producing Program:**

2012 FWS Lidar: Wapato, OR

1.2. Summary description of the data:

Continental Mapping Consultants, Inc. (CMC) acquired LiDAR data and imagery for the Tualatin National Wildlife Refuge on May 15, 2012. The project area was expanded to include a 100m buffer around the area of interest to ensure complete coverage. The dataset encompasses 19.24 square miles in the Tualatin National Wildlife Refuge, Wapato, Oregon. The lidar was collected with a pulse density of 30-60 points per square meter. Continental Mapping used co-mounted imagery and lidar sensors and a helicopter to acquire the data.

1.3. Is this a one-time data collection, or an ongoing series of measurements?

One-time data collection

1.4. Actual or planned temporal coverage of the data:

2012-05-15

1.5. Actual or planned geographic coverage of the data:

W: -123.160532, E: -123.077884, N: 45.49272, S: 45.360818

1.6. Type(s) of data:

(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)
Model (digital)

1.7. Data collection method(s):

(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys, enforcement activities, numerical model, etc.)

1.8. If data are from a NOAA Observing System of Record, indicate name of system:**1.8.1. If data are from another observing system, please specify:**

2. Point of Contact for this Data Management Plan (author or maintainer)**2.1. Name:**

NOAA Office for Coastal Management (NOAA/OCM)

2.2. Title:

Metadata Contact

2.3. Affiliation or facility:

NOAA Office for Coastal Management (NOAA/OCM)

2.4. E-mail address:

coastal.info@noaa.gov

2.5. Phone number:

(843) 740-1202

3. Responsible Party for Data Management

Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.

3.1. Name:**3.2. Title:**

Data Steward

4. Resources

Programs must identify resources within their own budget for managing the data they produce.

4.1. Have resources for management of these data been identified?

Yes

4.2. Approximate percentage of the budget for these data devoted to data management (specify percentage or "unknown"):

Unknown

5. Data Lineage and Quality

NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.

5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible

(describe or provide URL of description):

Process Steps:

- LiDAR Data Acquisition: The LiDAR acquisition mission was flown on May 15, 2012. LiDAR acquisition of the project area consisted of 21 low level flight lines with an

average altitude of 375 meters. The imagery acquisition consisted of 9 high level flight lines flown at an average altitude of 860 meters.

- A network of control points was established within the project boundary to validate the accuracy of the LiDAR data. The network consisted of Real Time Kinetic (RTK) points collected by Terra Remote Sensing, and existing US Fish and Wildlife Service monuments. The following points, WP02, WP03, WP06, and WP08 were verified by Terra Remote Sensing against the active CORS control stations, JIME (Portland, OR) and NWBG (Newberg, OR). An additional network check was completed between CORS stations FTS5, GOBS, and P367. Points WP02 and WP08 were also used as an RTK/PPK (Post Processed Kinematic) base station for the collection of lidar and orthophoto checkpoints.
- The raw project LiDAR data was imported, processed, and outputs were created using the TerraScan software suite. Automated ground filters were run on the raw las data. These filters include factors and settings such as max building size, terrain angle, iteration angle degrees to plane, iteration distance to plane, reduce iteration angle when edge length is less than, and stop triangulation when edge length is less than. After the automated ground filter is run each tile is then checked for spikes and anomalies. Manual edits are applied to any areas that the analysts interpreted the ground doing something other than what the automatic ground filter interpreted. An analyst also classifies and edits any other las point to needed feature classes at this time. Only the LAS inside the provided map limit was classified and checked by analysts. Any points that were relevant to the classification were classified to the SOW requirements and placed using the classes provided in the SOW. Class 1 Processed, but unclassified, Class 2 Bare-Earth Ground, Class 3 Vegetation, Class 4 Roads, Class 7 Noise, Class 9 Water, Class 10 Ignored Ground, Class 11 Withheld. Classified tiles were saved as las (Version 1.2). After classification and edits were complete the projection information was Geo-Coded back into the LAS files.
- 2019-12-11 00:00:00 - NOAA/OCM received the data from DOGAMI in LAZ format . Data were in NAD83(CORS 96) Oregon Lambert horizontally and NAVD88 (Geoid09) vertically. For ingest into the Digital Coast Data Access Viewer data were converted to geographic coordinates on the GRS80 ellipsoid in meters.

5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:

5.2. Quality control procedures employed (describe or provide URL of description):

6. Data Documentation

The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.

6.1. Does metadata comply with EDMC Data Documentation directive?

No

6.1.1. If metadata are non-existent or non-compliant, please explain:

Missing/invalid information:

- 1.7. Data collection method(s)
- 3.1. Responsible Party for Data Management
- 5.2. Quality control procedures employed
- 7.1.1. If data are not available or has limitations, has a Waiver been filed?
- 7.4. Approximate delay between data collection and dissemination
- 8.3. Approximate delay between data collection and submission to an archive facility

6.2. Name of organization or facility providing metadata hosting:

NMFS Office of Science and Technology

6.2.1. If service is needed for metadata hosting, please indicate:**6.3. URL of metadata folder or data catalog, if known:**

<https://www.fisheries.noaa.gov/inport/item/58304>

6.4. Process for producing and maintaining metadata

(describe or provide URL of description):

Metadata produced and maintained in accordance with the NOAA Data Documentation Procedural Directive: https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC_PD-Data_Documentation_v1.pdf

7. Data Access

NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.

7.1. Do these data comply with the Data Access directive?

Yes

7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?**7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:**

7.2. Name of organization of facility providing data access:

NOAA Office for Coastal Management (NOAA/OCM)

7.2.1. If data hosting service is needed, please indicate:**7.2.2. URL of data access service, if known:**

<https://coast.noaa.gov/dataviewer/#/lidar/search/where:ID=8963>

https://coast.noaa.gov/htdata/lidar3_z/geoid18/data/8963

7.3. Data access methods or services offered:

Data is available online for bulk or custom downloads

7.4. Approximate delay between data collection and dissemination:**7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:****8. Data Preservation and Protection**

The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.

8.1. Actual or planned long-term data archive location:

(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To Be Determined, Unable to Archive, or No Archiving Intended)

NCEI_CO

8.1.1. If World Data Center or Other, specify:**8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:****8.2. Data storage facility prior to being sent to an archive facility (if any):**

Office for Coastal Management - Charleston, SC

8.3. Approximate delay between data collection and submission to an archive facility:**8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?**

Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection

Data is backed up to tape and to cloud storage.

9. Additional Line Office or Staff Office Questions

Line and Staff Offices may extend this template by inserting additional questions in this section.